

ABSTRACT

A turbogenerator system including a compressor rotationally coupled to a turbine and a bleed valve connected to the compressor discharge to vent a portion of the compressed air when the turbogenerator speed is within a preselected range to prevent the compressor from stalling. The turbogenerator speed is controlled to provide a required amount of power, and the turbine exit temperature is controlled in accordance with different functions of turbogenerator speed and ambient conditions to maintain an air flow that will prevent compressor from stalling, the function selected in accordance with whether the bleed valve is open or closed.

TURBINE STALL PREVENTION SYSTEM